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| TO<br>Ref.   |             | Order<br>lo.              | Contract<br>Year                      | Task Order<br>Revision             | Reference                               |                | Labo             | ratory/Area     |                    |                | Туре:                                 |                 |
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#### A. PROJECT DESCRIPTION & SCOPE

TO Rev B: Task Order Revision B is generated in response to Task Plan Revision B. The purpose of this Task Order revision is to adjust target value to reflect actual effort to date. Task 1.1 effort has increased to include NASA-LX long-range scheduling efforts and "what if" scenarios. Task 4.0 effort for resource support has been increased. Task 5.0 has been adjusted to reflect the addition of two GSA vehicles.

TO Rev A: Task Order Revision A is generated in response to Task Plan Revision A. The purpose of this Revision is to further define project scope by adding support for Project Management, horizontal integration review and analysis as stated in Tasks 6.0 - 9.0. Primavera scheduling, Task 10.0, has been added to support level V scheduling efforts. Additional ODCs will be required to support Task 1.1, as well as modifying the existing allocation of ODC for Tasks 3.1 - 3.9. Increased level of effort to support Tasks 3.0, 3.4 and 3.5 have been added to support field engineering to GSE installation and activation. Also, the levels of Visualization modeling effort under Task 2.0 have been increased. All FY09 conferences have been removed per NASA's direction. Unless specified, all other scope of work defined in TO 7EPS00410, remains unchanged.

Basic: The purpose of this Revision is to define project scope continued from CY6/FY08 defined in TO 6EPS00410, Revision C. Unless specifically addressed below, the scope of work defined in 6EPS00410, Revision C remains unchanged.

#### CY6/FY08 Activity

The support requested in CY6/FY08 was less than anticipated. CY6/FY08 Target values have been adjusted to reflect actual effort and ODC costs.

#### CY7/FY09 Activity

Support is being extended through CY7/FY09. Scope for CY7/FY09 will be similar to CY6/FY08. Existing Task Order authority will fund these efforts.

#### Task Description

The contractor shall assist NASA and take direction from NASA for assigned Constellation (CxP) Ground Systems Element development efforts. These efforts shall be applied across all CxP-funded development activities to ensure project and technical coordination at appropriate levels. Under this Task Order, the contractor shall assist NASA in requirements management, risk management, preparing development of Critical Path Management (CPM) schedules for trade studies, development concept engineering designs, Ground Support Equipment (GSE) Acquisition Management Planning, and Field Activation Installation and Management planning.

#### B. TASKS

- 1.0 The contractor shall provide support to the requirements management effort, reviewing, verifying and tracking the Element project requirements to lower level documents. This support is limited to data entry of approved requirements into Cradle.
- 1.1 The contractor shall assist in development of Program Monthly Review (PMR) preparation and integrated critical path Primavera schedules.
- 1.2 The contractor shall provide support to the LX-D Office in defining, integrating, and preparing detailed engineering risks that will be rolled up to the Element project risks. This support shall include

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LX-D representation at the LX Risk Review Boards.

- 2.0 The contractor shall provide technical expertise for developing 3-dimensional models, drawings, animations and other conceptual products for use in planning for and developing future CxP Elements. This support shall include conceptual processing flows, analysis, and clearance assessments for facilities and GSE planned for use in processing CxP vehicles and Elements. The effort shall include modeling of existing and proposed GSE, facilities, and vehicles. This support shall include development of quarterly review packages.
- 3.0 The contractor shall provide field management support for planning future field engineering management functions and acquisitions.
- 3.1 The contractor shall provide technical expertise for GSE planning. This includes identifying the Element GSE being designed by end item, the planned GSE need dates, mod-kitting/storage, and installation strategy.
- 3.2 The contractor shall assist NASA with GSE acquisition planning, identifying long-lead procurement items, commonality of GSE between Elements, and procurement support.
- 3.3 The contractor shall assist NASA in GSE mod-kit planning for storing and staging the GSE prior to installation.
- 3.4 The contractor shall assist NASA in planning the field engineering support for the GSE installation and activation.
- 3.5 The contractor shall assist in planning the field engineering support for the facility construction and management activities.
- 3.6 The contractor shall provide engineering/technical support for the development of current and conceptual Support Equipment (SE) configurations.
- 3.7 The contractor shall maintain an integrated SE development and implementation schedule for tracking CxP SE development and implementation milestones. This schedule shall include both KSC SE and other NASA Centers' SE planned for use at KSC.
- 3.8 The contractor shall provide meeting minutes, action items, and presentation preparation for Ground Operations Support Equipment (GOSE) monthly reviews and internal weekly meetings.
- 3.9 The contractor shall provide dedicated Project Management support for all GOSE activities. This support shall include co-chairing meetings and leading the GOSE team in the absence of the NASA lead.
- **4.0** The contractor shall provide engineering and integration support to LX-D for Program reviews, trade analyses, "what-if" scenarios, Gray Beard reviews, and technical chief engineer analyses. This includes providing technical reviews, comments, and recommendations to the LX-D Office.
- 5.0 The contractor shall manage all USTDC Constellation GSA vehicles.
- 6.0 The contractor shall perform Project Management and horizontal integration review, and analysis of Logistics Supportability Analysis (LSAs) between KSC Elements and Contractors.
- 7.0 The contractor shall provide planning, requirements definition, acquisition, and management support of conditioned and unconditioned warehouse resources.

- 8.0 The contractor shall provide planning, requirements definition, acquisition and management support of transportation efforts.
- 9.0 The contractor shall provide Material and Process support.
- 10.0 The contractor shall provide level V Primavera schedule development and integration support to NE.

#### C. MILESTONES/DELIVERABLES

1. - Provide data entry of CxP Ground Systems requirements into Cradle.

Start Date: 10/01/2008End Date: 09/30/2009

2. - Provide monthly schedule PMR CPM integration and requirements support.

Start Date : 10/01/2008End Date : 09/30/2009

3. - Provide ongoing support for LX-D risk management.

Start Date: 10/01/2008End Date: 09/30/2009

4. - Provide technical expertise for 3-D concept and product development.

Start Date : 10/01/2008End Date : 09/30/2009

5. - Provide field management support for GSE and facility planning.

Start Date : 10/01/2008End Date : 09/30/2009

6. - Provide updated monthly GOSE schedule at the LX-D PMR. Schedule will be derived from Primavera Level IV schedules.

- Start Date : 10/01/2008End Date : 09/30/2009

7. = Support weekly GOSE internal informal meetings will be held every Tuesday; formal meetings will be held monthly.

Start Date : 10/01/2008End Date : 09/30/2009

8. - Provide Project Management support to GOSE. Start Date: 10/01/2008End Date: 09/30/2009

9. - Provide Project Management Support to LSA and horizontal integration effort. (TO Rev A)

Start Date: 01/01/2009End Date: 09/30/2009

10. - Provide technical support to warehousing resources. (TO Rev A)

Start Date: 01/01/2009End Date: 09/30/2009

11. - Provide technical support to transportation efforts. (TO Rev A)

Start Date : 01/01/2009End Date : 09/30/2009

12. - Provide technical support to Material and Process. (TO Rev A)

Start Date : 01/01/2009End Date : 09/30/2009

13. - Provide Primavera scheduling support to NE. (TO Rev A)

Start Date: 01/01/2009End Date: 09/30/2009

D. STANDARDS OF PERFORMANCE (METRICS)

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#### University-affiliated Spaceport Technology Development Contract NAS1003006 Page 1 of 9 **Task Order Plan** 100846 Year 7 Title Integration Support to Constellation (CxP) Ground Systems Development Plan Rev. B TO No. 00410 TO Rev. B LX-D3 USTDC Director ASRC-17 Wendy Mizerek-Herrburger PM: Steven Milton TO Status: IN REVISION ASRC-17 USTDC Manager: Christopher Keller Customer: Verified Date: ASRC-17 Lead Christopher Keller CONSTL Program

#### A. PROJECT DESCRIPTION & SCOPE

TO Rev B: Task Order Revision B is generated in response to Task Plan Revision B. The purpose of this Task Order revision is to adjust target value to reflect actual effort to date. Task 1.1 effort has increased to include NASA-LX long-range scheduling efforts and "what if" scenarios. Task 4.0 effort for resource support has been increased. Task 5.0 has been adjusted to reflect the addition of two GSA vehicles.

TO Rev A: Task Order Revision A is generated in response to Task Plan Revision A. The purpose of this Revision is to further define project scope by adding support for Project Management, horizontal integration review and analysis as stated in Tasks 6.0 - 9.0. Primavera scheduling, Task 10.0, has been added to support level V scheduling efforts. Additional ODCs will be required to support Task 1.1, as well as modifying the existing allocation of ODC for Tasks 3.1 - 3.9. Increased level of effort to support Tasks 3.0, 3.4 and 3.5 have been added to support field engineering to GSE installation and activation. Also, the levels of Visualization modeling effort under Task 2.0 have been increased. All FY09 conferences have been removed per NASA's direction. Unless specified, all other scope of work defined in TO 7EPS00410, remains unchanged.

Basic: The purpose of this Revision is to define project scope continued from CY6/FY08 defined in TO 6EPS00410, Revision C. Unless specifically addressed below, the scope of work defined in 6EPS00410, Revision C remains unchanged.

#### CY6/FY08 Activity

The support requested in CY6/FY08 was less than anticipated. CY6/FY08 Target values have been adjusted to reflect actual effort and ODC costs.

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Support is being extended through CY7/FY09. Scope for CY7/FY09 will be similar to CY6/FY08. Existing Task Order authority will fund these efforts.

#### Task Description

The contractor shall assist NASA and take direction from NASA for assigned Constellation (CxP) Ground Systems Element development efforts. These efforts shall be applied across all CxP-funded development activities to ensure project and technical coordination at appropriate levels. Under this Task Order, the contractor shall assist NASA in requirements management, risk management, preparing development of Critical Path Management (CPM) schedules for trade studies, development concept engineering designs, Ground Support Equipment (GSE) Acquisition Management Planning, and Field Activation Installation and Management planning.

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|          | USTDC Technical Lead               |         | USTDC S&MA DATE                                     |
|          | SIGNATURE Christopher Keller       | 3-13-09 | SIGNATURE Jari Gustafson 3-13-09                    |
|          | USTDC Manager                      | DATE    |   |
|          | SIGNATURE Christopher Keller       | 3-13-09 | NASA Approvals                                      |
| 1,780    | USTDC Director                     | DATE    | Task Order Manager / Org.                           |
| 50007614 | SIGNATURE Wendy Mizerek-Herrburger | 3-13-09 | SIGNATURE Stever-Million / LX-D3                    |
| 1 42     | USTDC CON .                        | DATE    | Contract Technical Manager / Org.  DATE  DATE  DATE |
| j 20     | SIGNATURE Pedro Medelius           | 3/13/09 | SIGNATURE Nancy Hattman 1 NE-12 FORTHUM 3 65 800    |

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## B. MILESTONES/DELIVERABLES

1. - Provide data entry of CxP Ground Systems requirements into Cradle.

Start Date: 10/01/2008 End Date: 09/30/2009

2. - Provide monthly schedule PMR CPM integration and requirements support.

Start Date: 10/01/2008 End Date: 09/30/2009

3. - Provide ongoing support for LX-D risk management.

Start Date: 10/01/2008 End Date: 09/30/2009

4. - Provide technical expertise for 3-D concept and product development.

Start Date: 10/01/2008 End Date: 09/30/2009

5. - Provide field management support for GSE and facility planning.

Start Date: 10/01/2008 End Date: 09/30/2009

6. - Provide updated monthly GOSE schedule at the LX-D PMR. Schedule will be derived from Primavera Level IV schedules.

Start Date: 10/01/2008 End Date: 09/30/2009

7. - Support weekly GOSE internal informal meetings will be held every Tuesday; formal meetings will be held monthly.

Start Date: 10/01/2008 End Date: 09/30/2009

8. - Provide Project Management support to GOSE.Start Date: 10/01/2008 End Date: 09/30/2009

9. - Provide Project Management Support to LSA and horizontal integration effort. (TO Rev A)

Start Date: 01/01/2009 End Date: 09/30/2009

10. - Provide technical support to warehousing resources. (TO Rev A)

Start Date: 01/01/2009 End Date: 09/30/2009

11. - Provide technical support to transportation efforts. (TO Rev A)

Start Date: 01/01/2009 End Date: 09/30/2009

12. - Provide technical support to Material and Process. (TO Rev A)

Start Date: 01/01/2009 End Date: 09/30/2009

13. - Provide Primavera scheduling support to NE. (TO Rev A)

Start Date: 01/01/2009 End Date: 09/30/2009

## C. TECHNICAL APPROACH

1.0 The contractor shall provide support to the requirements management effort, reviewing, verifying and tracking the Element project requirements to lower level documents. This support is limited to data entry of approved requirements into Cradle. (WBS 1.3)

USTDC will provide technical support in managing the requirements for CxP Ground Systems projects within Cradle. USTDC will provide highly-trained administrative level experts in Cradle. USTDC will ensure that approved requirements are accurately entered into the Cradle database. This effort will include

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ongoing support to the Cradle user and administrator working group.

1.1 The contractor shall assist in development of Program Monthly Review (PMR) preparation and integrated critical path Primavera schedules. (WBS 1.4)

USTDC personnel will assist NASA LX-D in PMR documentation. PMR preparation will include scanning the PMR presentation package and signed project schedules into the Windchill database. This will require the support of a Primavera scheduling expert to assist with the creation of various layouts/filters as needed to accurately represent the development of the projects and an integrated Constellation Critical Path. Support will be provided to create, develop and analyze LX schedule products supporting long-range planning, budgeting, and "what if" scenario exercises as requested by NASA-LX. (TP Rev B)

1.2 The contractor shall provide support to the LX-D Office in defining, integrating, and preparing detailed engineering risks that will be rolled up to the Element project risks. This support shall include LX-D representation at the LX Risk Review Boards. (WBS 1.5)

USTDC will work with the NASA Senior Project Managers (PMs) in defining the Element level risks from the technical engineering perspective. This effort will include assisting the NASA Senior PMs in accessing and inputting the risk data into the Constellation-approved risk management tool, the Integrated Risk Management Application (IRMA). Any presentations that are required for technical approval by the Level IV Project Management Review (PMR) board will be developed by the USTDC, CxP risk management expert. This resource will also support the LX-D risk reviews, coordinating actions from the working group meetings and will support the Risk Review Panels, functioning as the LX-D representative.

- 2.0 The contractor shall provide technical expertise for developing 3-dimensional models, drawings, animations and other conceptual products for use in planning for and developing future CxP Elements. This support shall include conceptual processing flows, analysis, and clearance assessments for facilities and GSE planned for use in processing CxP vehicles and Elements. The effort shall include modeling of existing and proposed GSE, facilities, and vehicles. This support shall include development of quarterly review packages. (WBS 1.6)

USTDC will develop 3-dimensional concepts, drawings, models, animations and other conceptual products for CxP planning. The USTDC engineers will use the latest versions of software available (Pro-E, Micro-Station V8, Maya 7.0) and will upgrade that software as necessary. The engineers will develop the 3-dimensional Computer Aided Design (3-D CAD) models, images, and animations to support trade studies, conceptual designs, and engineering assessments. The 3-D CAD models will be developed from high-level requirements and preliminary design concepts or architectures. The models will be used for computer-generated photo-realistic images and animations. USTDC will provide videos of significant activities as they occur at KSC specific to CxP design and modification efforts utilizing a Multimedia Production Specialist. This will include video clips of events such as 0 & C modifications or Mobile Launcher new construction. These 3-D CAD models, animations, images and video clips will be used for inclusion in the PMR and other management presentations. Additional software and hardware tools are required for the engineering designers. The USTDC engineers will prepare a quarterly review package using visualization products.

3.0 The contractor shall provide field management support for planning future field engineering management functions and acquisitions. (WBS 1.7)

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# 1. DOCUMENT NO(S) TO Ref: EPS TO No.: 00410 TO Rev: B Plan Rev: B Plan Rev: B 4. DOCUMENT: Title: Integration Support to Constellation (CxP) Ground Systems Development 2. Page 4 of 9 Page 4 of 9 3. OFFICE: 5. DATE:

USTDC will provide planning support for field engineering functions and acquisitions. These functions and acquisitions will include Ground Support Equipment (GSE), facility construction, construction/craft labor support, design support, operations support, test/termination/verification support and Indefinite Delivery/Indefinite Quantity (IDIQ) acquisitions.

3.1 The contractor shall provide technical expertise for GSE planning. This includes identifying the Element GSE being designed by end item, the planned GSE need dates, mod-kitting/storage, and installation strategy. (WBS 1.8)

USTDC will provide the technical expertise for GSE planning to include GSE identification, need dates, procurement methodology, kitting/storage and installation. USTDC will work with the design and operations communities to ensure optimal planning. GSE planning results will be coordinated with the LX-D Senior Project Managers and the LX-D management for approval prior to implementation.

3.2 The contractor shall assist with the GSE acquisition planning, identifying long-lead procurement items, commonality of GSE between Elements, and procurement support. (WBS 1.9)

USTDC will assist in developing the GSE acquisition planning for each Element and will address the detailed end items for that Element. This effort will include identifying long-lead procurements and candidates for bulk buys between Elements. The contractor will work with procurement, project, design and operations communities to develop the plan. The acquisition plan will be coordinated with LX-D management for approval prior to implementation.

3.3 The contractor shall assist in GSE mod-kit planning for storing and staging the GSE prior to installation. (WBS 1.10)

USTDC will assist in developing GSE mod-kit planning for storing and staging GSE prior to installation. The contractor will work with responsible procurement and logistics (warehousing and transportation) to develop this plan. The planning will be coordinated for approval by LX-D management.

3.4 The contractor shall assist in planning the field engineering support for the GSE installation and activation. (WBS 1.11)

USTDC will assist in developing the field engineering support plan for GSE installation and activation. USTDC will work with LX-D project management, design and operations in developing this plan. The plan will be approved by LX-D management prior to implementation. USTDC will plan for and acquire necessary tools and equipment to accommodate GSE installation.

3.5 The contractor shall assist in planning the field engineering support for the facility construction and management activities. (WBS 1.12)

USTDC will assist in developing the field engineering support plan for facility construction and management activities. The contractor will work with LX-D project management, design, Institutional Services Contact (ISC) and operations communities to assist in the definition of roles and responsibilities. The final plan will be approved by LX-D management prior to implementation.

3.6 The contractor shall provide engineering/technical support to the development of current and conceptual Support Equipment (SE) configurations. (WBS 1.13)

USTDC will develop and maintain an electronic PowerPoint/pdf pictorial representation of the SE configurations and identify system, subsystem, Element, and facility as part of the representation. Also,

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| 4. DOCUM  | MENT:      | nstellation (CxP) Ground Systems Development | 5. DATE:    |

the representation will include item and Program Model Number (PMN), to distinguish between existing, modified, or new equipment, and to identify development responsibility. USTDC will provide electrical, mechanical and fluid engineering support to the GOSE team on a full-time basis.

3.7 The contractor shall maintain an integrated SE development and implementation schedule for tracking CxP SE development and implementation milestones. This schedule shall include both KSC SE and other NASA Centers SE planned for use at KSC. (WBS 1.14)

USTDC will develop an integrated SE schedule for tracking development, procurement and implementation milestones. As a minimum, the schedules will include task bars that identify design, Advertise and Award (A & A), fabrication, assembly, activation / validation phases and critical milestones including Design Certification Review (DCR) and Operational Readiness Review (ORR). USTDC will coordinate with the GOSE working group and other NASA Centers to ensure scheduling data is both accurate and current.

3.8 The contractor shall provide meeting minutes, action items, and presentation preparation for Ground Operations Support Equipment (GOSE) monthly reviews and internal weekly meetings. (WBS 1.15)

USTDC will provide meeting support for monthly GOSE reviews and weekly GOSE meetings. USTDC will prepare and coordinate meeting agendas, assist in presentation development, record and track action items, record and publish meeting minutes, and coordinate badge requests. This support is composed of administrative, visualization and engineering support for the monthly reviews/meetings.

3.9 The contractor shall provide dedicated Project Management support for all GOSE activities. This support shall include co-chairing meetings and leading the GOSE team in the absence of the NASA lead.

-(WBS 1.16)

USTDC will assign a dedicated Project Manager (PM) to be responsible for the coordination and planning of all GOSE-related activities. The PM will contact participants, organize meetings, set agendas, document results and be a direct focal point for other NASA centers.

4.0 The contractor shall provide engineering and integration support to LX-D for Program reviews, trade analyses, "what-if" scenarios, Gray Beard reviews, and technical chief engineer analyses. This includes providing technical reviews, comments, and recommendations to the LX-D Office. (WBS 1.17)

USTDC will provide engineering and integration support to LX-D for Program reviews, trade study analyses and "what-if" scenarios. The contractor will provide Gray Beard and technical chief engineer analyses and technical reviews, comments, and recommendations to the LX-D Office. Support for these reviews includes use of technical resources and participation in technical discussions and exchanges.

USTDC will provide additional resources for technical chief engineering functions as requested to support LX integration and technical assessments. (TP Rev B)

5.0 The contractor shall manage all USTDC Constellation GSA vehicles. (WBS 1.18)

USTDC will-control and track all ASRC Constellation non-infrastructure GSA vehicles on this Task Order. USTDC will ensure that monthly records and reports are forwarded to the appropriate logistics focal within ASRC. USTDC will ensure that all new requests for GSA vehicles are approved by LX-D1 prior to being added to this Task Order. The BOE will identify the support Element or function for each vehicle and vehicle type.

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6.0 The contractor shall perform Project Management and horizontal integration review, and analysis of Logistics Supportability Analysis (LSAs) between KSC Elements and Contractors. (WBS 1.19) (TP Rev A)

USTDC will review system/subsystems LSA and acquisition plans in support of identifying the appropriate overall KSC CX spare parts levels. USTDC will work with engineering and project management in preparation of spare parts orders to obtain the appropriate KSC spares quantities. (TP Rev A)

7.0 The contractor shall provide planning, requirements definition, acquisition, and management support of conditioned and unconditioned warehouse resources. (WBS 1.20) (TP Rev A)

USTDC will review acquisition plans, monitor development acquisition schedules and attend design reviews to identify hardware quantities, storage requirements (space and conditioning) and any special handling or maintenance requirements. USTDC will work closely with LX-L in identifying warehousing needs and storage space. This information will be maintained in the GOSE Hardware Database. (TP Rev A)

8.0 The contractor shall provide planning, requirements definition, acquisition and management support of transportation efforts. (WBS 1.21) (TP Rev A)

USTDC will attend design reviews, review acquisition plans and procurement packages to identify any special handling or transportation needs based upon hardware design or conditioning requirements. This information will be maintained in the GOSE Hardware Database. (TP Rev A)

9.0 The contractor shall provide Material and Process support. (WBS 1.22) (TP Rev A)

USTDC will support M & P by reviewing callouts for specifications, standards and documentation ensuring that these callouts are complied with. USTDC will also support KSC CX level MRBs. (TP Rev A)

10.0 The contractor shall provide level V Primavera schedule development and integration support to NE. (WBS 1.23) (TP Rev A)

USTDC will work with NE-D and various NE groups to develop level V design, acquisition, fabrication and installation details of the development schedules. This includes developing standard formats, standard level of detail in the schedules. USTDC will also develop custom views such as acquisition summary views as defined by the customer. USTDC will provide Verification & Validation (V & V) and Integrated V & V scheduler development support. (TP Rev A)

#### D. BASIS OF ESTIMATE

The NASA TOM and USTDC Task Order Lead partnered through a meeting on 08/28/2008 to arrive at the estimated planned effort. The skill mix selected for this project is based on the minimum skill levels needed to perform the tasks within the schedule defined in this Task Order.

A revised skill mix to perform the remaining tasks defined in this Task Order was established by partnering with the NASA TOM in meetings during February and March 2009. (TP Rev B)

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|--|---|
| <u>= Tota</u>  | al ODC Costs (TP Rev A) (TP Rev B)                          |
| = Total GSA vehic  | le (TP Rev A) (TP Rev B)                                    |
| GSA Vehicles – by tag and model: These ve<br>5-GSA Vehicles Monthly cost – | ehicles are further defined below. (WBS 1.18)<br>Escalation |

#### 2. 1. DOCUMENT NO(S) TO Ref: **EPS** Page 7 of 9 Kennedy Space Center TO No.: 00410 **Document Continuation Sheet** TO Rev: В 3. OFFICE: Plan Rev: B 5. DATE: 4. DOCUMENT: Title: Integration Support to Constellation (CxP) Ground Systems Development One vehicle ( Dodge Stratus) is used for Project Management support to the CCC Element. = G10-8628B - Dodge Stratus- estimated monthly based on 8/21/08 billing Two vehicles previously on TO 423 are used for the ASRC Electrical organization to support Multi-Element supports. . = G12-50123 - Dodge Stratus- estimated monthly based on 8/21/08 billing = G42-0939A - Ford Explorer- estimated monthly based on 8/21/08 billing One vehicle previously funded under TO 396 is used for Project Management support to the PAD and Hangar AF. Y $_{\cdot}$ = G41-68294 - Chevrolet Mini Van- estimated monthly based on 8/21/08 billing One vehicle is used for Project Management support to the Vertical Integration Element = G41-53856 - Chevrolet Uplander- estimated monthly based on 8/21/08 billing One vehicle is used to support Field Contract Management x 5mo. - AFV Minivan - New vehicle estimated monthly based on January 09 billing (TP Rev B) > One vehicle is used to support the FAIMM group x 5mo. - G10-8501B Dodge Stratus estimated monthly based on January 09 billing (TP Rev B) The following hardware & software are used for computer-generated photo-realistic images and animations. The specialists will provide videos of significant activities as they occur at KSC specific to CxP design and modification efforts. This will require a trip to New Orlean, LA for a SIGGRAPH conference. (TP Rev A) Non-Odin hardware and software will be covered in the IT Plan: USTDC Business Systems Moderate #CD-999-M-KSC-2273. (WBS 1.6) (Based on vendor quotes) = Total hardware & software (TP Rev A) = Autodesk Maya Complete 2009 Upgrade · = Autodesk Maya technical literature -= Polytrans for Windows VISTA/XP = (TP Rev A) = Turbo Squid -= 3D Connection SpacePilot -

- = Waycom 9x12 USB Tablet PC -
- = Leica Disto A5 -
- = Da-Lite 72606 Slimline Electrol 60x80 Video Screen \$\frac{1}{2}\$ The following hardware is needed to support Primavera scheduling with the creation of various layouts and PMR presentations. (WBS 1.4) (TP Rev A)
  - = Total Primavera Support (TP Rev A)

USTDC will place a Primavera Senior Consultant on location to provide project scheduling support for Ground Systems at KSC. (Based on vendor quote) (WBS 1.4) (TP Rev A)

- = Primavera Expert Support Two 3 day sessions @ .
- ea. (TP Rev A)

- = 101 instructional manuals @
- ea. (TP Rev A)

= Total travel (TP Rev A)

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| Title: Integration support     | H 2009 Conference in New Orleans, LA = August 2009 =                        | ਤੇ people for 5 days:       |
| = SIUUKAI                      | timate: by Travelocity: Rental car estimate: by T                           | Tavelocity. Loughing        |
| per GSA rate:                  | ₩ & IE GSA rate: Mileage GSA rate:  | (Conference based on 2008   |
| vendor quote) (TP F            |   |                             |
| yendor que e,                  | C to coordinate with the Ground Operations Support Equ                      | ipment (GOSE) working       |
| Quarterly trips to J           | SA Centers to ensure scheduling data is both accurate a                     | and current. (WBS 3.7)      |
| group and other N/             | DA Centers to chaute sententing that 2000 22                                | and for 3 days: Airfare est |
|                                | erly trips to JSC in Houston, Texas. November 2008 – 2 p                    | g per GSA rate: M &         |
| by Travelocity:                | , Kelitai cai estimatet by  | g per dort rate.            |
| IE GSA rate:                   | Mileage GSA rate:   | 1- 1 2 4 AU ODC             |
| The purchase of m              | aterials, tools and equipment that will be required for sur                 | oport of Task 3.4. All ODC  |
| expenditures have              | been coordinated with and agreed to by the NASA TOM. (                      | WBS 1.11) (Based on Vendor  |
| quotes)                        |   |                             |
|                                | (TP Rev B) = Total tools and equipment                                      | (TP Rev A)                  |
|                                | Iliams Scotsman 45ft. Storage Trailers : ea. (TP Re                         | ev A)                       |
| = 4 - W                        | preventive maintenance (2 Clark CMP30G, 1 Mitsubishi                        | FG35, 1 Clark LDP100)       |
| = FORKIIIL                     | klift service call (4 ea one per lift, @ 2 hours per call) x                | ea.                         |
| = 7 = 10                       | AUY9 Metal chop saw x (TP Rev B)  |                             |
| = 24 - 5/                      | (939 Abrasive chop saw wheels x ea.   |                             |
| = 12 =                         | 3AC13 Crimp wire x ea. (TP Rev B)   |                             |
|                                | 3K4 Knot wire x ea.   |                             |
|                                | 731 Miller Engine x ea. (TP Rev A)  |                             |
|                                | 529 Protective cover x ea.  |                             |
|                                | C88 Accessory kit cable x ea. 712 Remote foot control x ea.                 |                             |
|                                | 372 Electro oven x (ea.   |                             |
|                                | Y29 Gas welding outfit x ea.  |                             |
|                                | /91 Floor fan x ea.   |                             |
| = 2 - 06                       | 609648 24" Ridgid pipe wrench x ea.   |                             |
| = 2 - 06                       | 609580 18" Ridgid pipe wrench x ea.   |                             |
| = 2 = 74                       | 779687 5" Ridgid pipe wrench x ea. (TP Rev A)                               |                             |
| = 1 - 74                       | 779406 Ridgid machine x ea.<br>669853 Floke voltage tester x ea. (TP Rev A) |                             |
| = <del>2</del> = <del>75</del> | 00000 Hake tollage see as   |                             |
| = 1 - 06                       |   | ea. (TP Rev B)              |
| ·= T = 1                       | 13401440 Klugia potrei mana amonas  |                             |
|                                | E. STANDARDS OF PERFORMANCE (METRICS)                                       |                             |

1. - Task Order metrics will be collected in accordance with the USTDC Internal Surveillance Plan.

# F. RISK ASSESSMENT

Risks have been reviewed and remain the same. (TP Rev B) Risks have been reviewed and remain the same. (TP Rev A) No risks were identified during the planning of this Task Order.

03/13/2009 | 1=05 |

#### 2. 1. DOCUMENT NO(S) Kennedy Space Center Page 9 of 9 TO Ref: **EPS** 00410 TO No.: **Document Continuation Sheet** В TO Rev: 3. OFFICE: Plan Rev: B 5. DATE: 4. DOCUMENT: Title: Integration Support to Constellation (CxP) Ground Systems Development

# G. OTHER PERTINENT INFORMATION

S & MA Statement: No USTDC S & MA support is required.

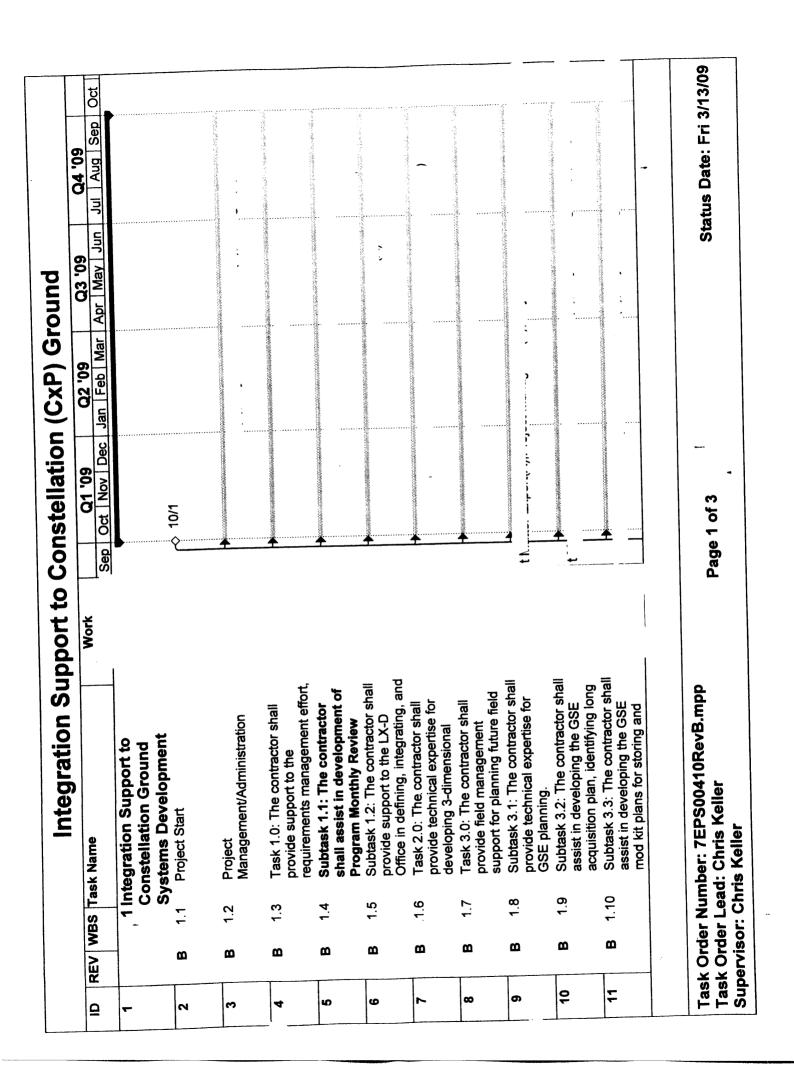
University Affiliation: No University Affiliation has been initially planned; as the Task Order progresses, the opportunity for University Affiliation will be re-evaluated.

Success Story: A Success Story is not anticipated for this mission support Task Order.

New Technology Report (NTR): Consideration was given to an NTR; however, the need to create an NTR is not anticipated.

OCI has been reviewed and the statement remains the same. (TP Rev B)
OCI has been reviewed and the statement remains the same. (TP Rev A)
OCI: USTDC acknowledges that a potential for OCI exists on this Task Order as a result of

OCI: USTDC acknowledges that a potential for OCI exists on this Task Order as a result of dealing with Program-level requirements associated with any implementation or operational contracts. USTDC will abide by its contractual commitments and firewall its staff for limitations of future contracting.



| IN REV W               | WBS Task Name Work Q1 '09 Q2 '09 Q3 '                                 | Work        | Q1 '09      | Q2 '09      | 8  | Q-  |
|------------------------|---|-------------|-------------|-------------|--|---|
|                        |   | Sep         | Oct Nov Dec | Jan Feb Mar | Apr   May   Jun                            | 4,  |
| 12 B 1                 | 1.11 Subtask 3.4: The contractor shall assist in developing the field |             |             |             |  | Pro-control for the probability of the probability |
| 1                      |   |             |             |             |  |   |
| 13<br>B                | 1.12 Subtask 3.5: The contractor snall assist in developing the field |             |             |             |  |   |
|                        | _   |             |             |             |  |   |
| 14 B                   | 1.13 Subtask 3.6: The contractor shall                                | <b>£</b>    |             |             | •  |   |
|                        | support to the development of   | •           | ,           |             |  |   |
| 15 B                   | 1.14 Subtask 3.7: The contractor shall                                | 1           |             |             |  |   |
|                        |   |             | :           | ,           | •  |   |
|                        | Equipment (SE) development  |             |             |             | 000000000000000000000000000000000000000    |   |
| 16 B                   | 1.15 Subtask 3.8. The contractor shall                                | <b>±</b>    |             |             |  | ,   |
|                        | provide meeting minutes, action                                       |             |             |             | 1  |   |
|                        |   | 4           |             |             |  |   |
| 17 B                   | 1.16 Subtask 3.9: The contractor shall                                | <b>£</b> .  |             |             |  | -   |
|                        | provide dedicated Project   | _           |             |             |  |   |
|                        |   |             |             |             | (5) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1 |   |
| 18<br>B                | 1.17 Task 4.0: The contractor shall                                   |             |             |             |  |   |
|                        | provide engineering and   |             | •••         |             |  |   |
|                        | _   |             |             |             |  |   |
| 19 B                   | 1.18 Task 5.0: The Contractor shall                                   | <b>*</b>    |             |             |  |   |
| -1. · -5 · -           | provide and accounting or   |             |             |             |  |   |
|                        |   |             |             |             |  |   |
| 20 B                   | 1.19 Task 6.0: The contractor snall                                   | ]           |             |             |  |   |
|                        | penoin Project Mariagement  |             |             |             |  |   |
| Т                      |   |             |             |             |  |   |
| 21 - 12                | 1.20 Lask 7.0. The Contractor Strain                                  |             |             |             | -  |   |
|                        | definition, acquisition, and  |             |             |             |  |   |
| 9                      | 1 21 Task 8 0 The contractor shall                                    |             |             |             |  |   |
| a 77                   |   |             |             |             |  |   |
|                        | definition, acquisition and   |             |             |             |  |   |
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| Fask Orde              | Task Order Number: 7EPS00410RevB.mpp                                  | Page 2 of   | 2 of 3      |             | Sta  | <b>Status Date: Fri 3/13/09</b>   |
| Task Order Lead: Chris | Task Order Lead: Chris Keller   | )<br>B<br>- | ·<br>•      |             |  |   |

| Integration Sup  | to Constellation (CxP) Ground  |       |
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| ID REV WBS Task Name   | Work         Q1 '09         Q2 '09         Q3 '09         Q4 '09           Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep | Ö     |
| 23 B 1.22 Task 9.0: The contractor shall provide Material and Process support.  24 B 1.23 Task 10.0: The contractor shall provide level V Primavera schedule development and |  |       |
|  |  |       |
| Task Order Number: 7EPS00410RevB.mpp<br>Task Order Lead: Chris Keller<br>Supervisor: Chris Keller  | Page 3 of 3  | 13/09 |

# USTDC TASK ORDER PLAN (J5) SUMMARY



| Task Order #<br>Contract Yr. | 00410 | Rev:<br>Plan    | Rev: <b>B</b><br>Plan Rev: <b>B</b> | <b>m m</b> | F        | #e: <b>!!</b> | tegrati | on Sur | port t  | o Cons                | stellati | on (Cx | P) Gro | ound Sy  | rstems ( | Title: Integration Support to Constellation (CxP) Ground Systems Development | nent |           |         |                 |
|------------------------------|-------|-----------------|-------------------------------------|------------|----------|---------------|---------|--------|---------|-----------------------|----------|--------|--------|----------|----------|--|------|-----------|---------|-----------------|
|                              |       |                 |                                     |            |          |               |         | Curre  | nt Cont | Current Contract Year | ár       |        |        |          |          |  |      |           |         |                 |
|                              | CY1-5 | οχ <sub>0</sub> | 8                                   | Nov        | <b>S</b> | Jan           | G       | Kar    | Ą       | May                   | Jun      | 5      | Aug    | g.<br>G. | Total    | CY8  | CYS  | From      | Delta   | Grand<br>Totals |
| ASRC Labor abor Sub-Total    |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Fotal Labor Hours            |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| M&A Adj                      |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| ODC G&A A                    |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Adj. Labor Total             |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| ODC                          |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Adj. ODC Total               |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Subtotal Est. Cost           |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Award Fee                    |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  |      |           |         |                 |
| Incentive Fee                |       |                 |                                     |            |          |               |         |        |         |                       |          |        |        |          |          |  | - 1  | 101010    | 070     |                 |
| Total Cost & Fee             |       |                 |                                     |            | :        |               |         |        |         |                       |          |        |        |          |          |  | O    | 6,342,704 | 049,897 | 0,012,044       |

Approval For Task Order Number: 00410 B
USTDC Business Office
Cummins, Martin

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| k Order #: 00410 C            | CY: 7 Rev: B | Plan Rev: B | tev: B |     |     |     |     | USTO | C Task             | Order Pi | USTDC Task Order Plan Detail (ASRC) | (ASRC)  |     |       |   |        | -    |       | T     |
|-------------------------------|--------------|-------------|--------|-----|-----|-----|-----|------|--------------------|----------|-------------------------------------|---------|-----|-------|---|--------|------|-------|-------|
| Productive Man-Hours          |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      | 3     |       |
| or Hours                      | CY1-5        | CY6         | ठ      | Nov | Dec | Jan | Feb | Mar  | Apr                | May J    | Jun Ju                              | Jul Aug | Sep | Total | ဦ | E<br>S | From | Delta | otais |
| ifiguration Management A      |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| ector                         |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
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| Jineering Aide I              |              |             | :      | :   | ;   | 1   |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| jineering Designer            |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| jineering Designer II         |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
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| aphic Design Specialist II    |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   | i      |      | d     | •     |
| -trator                       | :            | 1 1         | :      | ,   |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| -ger                          | . '          |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
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| stwork Administrator III      | ; <b>1</b>   |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
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| oject Administrator II        | :            | ;           | •      |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| oject Administrator III       |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| oject Administrator IV        |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| oject Manager                 | i            |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| oject Manager II              | ı            |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| oject Manager III             | ;            |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| roject Manager IV             |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| r. Project Manager            | ı            |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| ubject Matter Expert          | ı            |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       |       |
| 'nical Editor III             |              |             |        |     |     |     |     |      | enter and a second |          |                                     |         |     |       |   |        |      |       | T     |
| oral Hr                       |              |             |        |     |     |     |     |      |                    |          |                                     |         |     |       |   |        |      |       | T     |

ASRC Aerospace Corp. Proprietary Information

(ASRC) Page 2 of 3

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ASRC Aerospace Corp. Proprietary Information

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Consultants ODC Sub-Total

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Work Details Work Employee ID Director(A)

Engineer V(A)
Manager(A)
Project Administrator II(A)
Project Administrator II(A)
Project Administrator II(A)
Project Administrator IV(A)
Project Manager IV(A)
Subject Matter Expert(A)
Group Group: Project Administrator IV(A) Groc. \_\_\_grneering Designer II(A) Group: Project Administrator II(A) Group: Subject Matter Expert(A) Group. rivget manager IV(A) Group: Project Mananar Grou. - roject Adı Group: Manager(A) .... Group: Urrector(A) Group. No Value Resource Name Grou 26 29 16 ₽

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ASK OKPEN I FAIT TILL

| 7FPS00410   | TO Rev. B              | TP Rev. B Validated By (PA):   | Artnur vvaters |
|---|------------------------|--|----------------|
| Task Order No   |                        | in equipment (inding? Yes( ) No(X)   |                |
| Technology Outreach: Was I<br>If yes, notify Tech Outreach  | USTDC involved         | in securing funding? Yes(⁻) No(≺)  | <b>N</b> 1/A   |
| PLAN TEXT   | N/A                    | SCHEDULE   | - N/A          |
| Contact Information Names and Mailstops   |                        | Gantt Chart Tasks Milestones Deliverables  |                |
| Risks Identified(*Required) Cost*   | Z/                     | Resources  | Ø              |
| Schedule* Technical* Safety* Other Security Export Control Health Innovations New Process Environment   | 000000 986<br>888899 0 | Resource Requirements Engineering Support Technical Writing Editing Word Processing Graphics/Illustrations Drafting Web Page Design Web-Based Database Dev. Project Photography  |                |
| <b>Quality Statement</b>  | Ø                      | Video/Audio<br>3D Animation/Modeling<br>CD-ROM   |                |
| Other Pertinent Information ODCs Travel Training Material Equipment Procurement Consultants Services Identify Large Procurements University Affiliation New Technology Report Success Story Tech. Dev. & App'l Report Commercialization Potential Innovations Data Base |                        | Technical Services  Welding Machine Shop Cable Shop Pneumatic Instrum./Data Acquisition Safety Engineering Quality Inspection Reliability Engineering Environmental Engineering Project Administrator Supervisor Matrixed Personnel IT Security Plan (Sys. Adm.) |                |
| COST SHEET  Subcontractor Concurrance Swales Sierra Lobo UCF/SRTI   |                        | Checklist Plan Cost Sheet Schedule NASA TOM Tech.Eval Sheet  | চ্চিত্ৰিত্ৰ    |
| Overtime Planned  |                        |  |                |

# University-affiliated Spaceport Technology Development Contract (USTDC) Combination Pre-Negotiation/Price Negotiation Memorandum

# Title - Integration Support to Constellation (CxP) Ground Systems Development

**Purpose and Description of Task Order** 

The purpose of this task order is to assist NASA in the overall project management and horizontal integration function for assigned Constellation (CxP) Ground Systems development project efforts. These efforts shall be applied across all CxP funded development activities to ensure project and technical coordination at appropriate levels. The purpose of this revision B is to adjust target value to actual effort.

The period of performance for this Task Order will be from January 18, 2007 through September 30, 2009.

The Task Order Plan and ASRC's final cost proposal is the product of a series of requirements definition meetings undertaken between the contractor and the Government to arrive at a fair and reasonable technical approach, skill mix, necessary ODC's, and the associated costs. This memorandum details the resultant task order value.

**Participants** 

Contracting Officer - Andrew S. Dennis/OP-ES NASA Task Order Manager - Steven Milton/LX-D CTM - Nancy Hoffman/NE-I2 USTDC Lead - Christopher Keller USTDC TOM - Christopher Keller

**Status of Contractor Systems** 

ASRC's Accounting system has been determined to be adequate for the accumulation, reporting and billing of costs under government contracts. (Reference DCAA Audit Report No. 6311-2005D17740010, dated March 30, 2005.) The Billing system has also been determined to be adequate for billing costs accumulated under government contracts. (Reference DCAA Audit Report No. 6311-2005D17740011, dated April 6, 2005.) A Purchasing system review was performed by NASA/KSC and determined ASRC's purchasing policies and practices to be adequate for protecting the Government's interest. (Reference Contractor Purchasing System Review, dated August 27, 2008).

# **Certificate of Current Cost or Pricing Data**

A certificate of current cot or pricing data is not required for this dollar value.

#### **Cost Elements**

The total proposed adjusted target labor cost of the work associated with the subject Task Order . The labor classifications and rates proposed by ASRC (TO) is increased by \ are in compliance with contract clause B.6, Task Order Pricing. The NASA Task Order Manager (TOM) has reviewed ASRC's task order plan and found the proposed labor hours and skill mix appropriate and reasonable to facilitate successful completion of the subject TO as evidenced by his signature on the Task Order Plan as well as the attached Technical Evaluation dated March 13, 2009.

#### Other Direct Costs (ODC's)

in ODC's in support of this task order for a revised task order ASRC proposed a decrease by \ The NASA Task Order Manager (TOM) has reviewed ASRC's proposed ODC's and found them acceptable and reasonable as evidenced by the attached Technical Evaluation.

The total fee is calculated in accordance with that negotiated at the time of contract award and established in contract clause B.2, Contract Value, Award Fee, and Incentive Fee.

**Other Data** The Resource Management Office (RMO) has verified that funds in the amount of to perform this work. Additional funds will be added at a later date. If additional funds are not available, the scope of the work will be reduced. The period of performance is from January 18, 2007 through September 30, 2009.

### Contract NAS10-03006

Task Ter Number 2001 V Task Order F. an Revision 7EPS00410 Rev B

Based on the above, the Contracting Officer has determined that the net increase in the total negotiated Cost Plus Award/Incentive Fee amount of \_\_\_\_\_ is fair and reasonable and finds it in the best interest of the Government to issue Task Order 00410 CY7 Rev B in the total amount of

Andrew S. Dennis **Contracting Officer** 

Enclosures\ **Government Negotiation Position Technical Evaluation** Task Order Plan

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| Director                         | · <b>4</b> 3 | ₩           |      | <b>69</b>   | €>           |      | <b>.</b>   |           | ø e          |      |
| Engineer III                     | •            | •           |      | <b>v</b>    | ••           |      | <b>1</b> 0 |           | A 6          |      |
| Engineer IV                      | •            | 69          |      | ••          | <b>6</b> 9 ( | •    | <b></b> •  |           | e e          |      |
| Engineer V                       | s,           | <b>•</b>    |      | <b>19</b> ( | * •          |      | , ,        |           | • •          |      |
| Engineering Aide I               | ••           | <b>1</b>    |      | ю (         |              |      | , v        |           | • •          |      |
| Engineering Designer             | •            | <b>U</b>    |      | A (         | B 4          |      | • •        |           | •            |      |
| Engineering Designer II          | s,           | <b>69</b> ( |      | A (         |              |      | • •        |           | 69           |      |
| Graphic Artist                   | s,           | <b>19</b>   |      | , ·         | 9 6          |      |            |           | •            |      |
| Graphic Design Specialist II     | ,<br>•       | •           |      | <b>18</b> ( | A 4          |      | . v        |           | • •          |      |
| Illustrator I                    | s,           | <b>⊕</b>    |      | <b>19</b> ( | A 4          |      |            |           | · <b>6</b> 9 |      |
| Manager                          | ø            | ••          |      | <b>19</b> ( | A 6          |      |            |           | • •4         |      |
| Multimedia Production Specialist | s,           | •           |      | <b>9</b>    | <i>~</i> •   |      | •          |           | • 69         |      |
| Network Administrator III        | <b>49</b>    | •           |      | <b>15</b> ( | e •          |      | , ,        |           | • •          |      |
| Project Administrator I          | <b>6</b>     | <b>69</b>   |      | <b>\$</b>   | 9 4          |      | • •        |           | · <b>6</b> 9 |      |
| Project Administrator II         | 69           | <b>69</b>   |      | <b>19</b> ( | <b>₽</b> €   |      | • •        |           | • 49         |      |
| Project Administrator III        | ø            | <b>67</b>   |      | <b>19</b> ( | B 6          |      |            |           | • •9         |      |
| Project Administrator IV         | <b>6</b>     | s)          |      | <b>.</b>    | A 6          |      | • •        |           | • •          |      |
| Project Manager                  | ø,           | <b>69</b>   |      | <b>P</b>    | 6            |      |            |           | 69           |      |
| Project Manager II               |              | •           |      | •           | •            |      | <br>• •    |           |              |      |
| Project Manager III              | s,           |             |      | va •        |              |      |            |           | - 69         |      |
| Project Manager IV               | •            | •           |      | <b>19</b> ( | <i>~</i> •   |      |            |           | • 69         |      |
| Sr. Project Manager              | ø            | •           |      | va (        |              | -    | • •        |           | - 49         |      |
| Subject Matter Expert            | <b>s</b>     | •           |      | A (         |              | •    | •          |           | · es         |      |
| Technical Editor III             | ,<br>S       |             |      | <b>~</b>    | •            |      |            |           |              |      |
| Total ASRC Labor                 |              |             |      |             |              |      |            |           |              |      |

Total Subcontract Labor

TOTAL LABOR

M&A Total Labor Other Direct Costs

Subtotal

Subcontract G&A ODC G&A Subtotal G&A

Total Estimated Cost

Adjusted Target Cost (less ODC)

Award Fee Incentive Fee

Total Est Cost & Fee

Figures may differ from task order summary due to rounding.

\$3.419.186

\$6,612,544

\$1.856.440

\$1,336,918

# NAS10-03006: USTDC TECHNICAL EVALUATION FORM

(Use of this form is mandatory for all Task Order Plan changes)

WHEN A BASIS OF DETERMINATION BLOCK IS CHECKED, FILL INS ARE REQUIRED.

| PROJECT TITLE Integration Support Constellation (CxP) Ground Systems Development  | Task Order No.:                                |  |
|---|--|--|
| The Integration Support Constellation (CXT) Forume Systems Described in the Contractor's Statement:  I have reviewed the referenced Task Order Plan to confirm the Contractor's understanding of the scope of work and to ascertain the reasonableness of the kinds and quantities of resources proposed to accomplish that work. My findings and the rationale are provided below. | Revision:<br>B                                 | Task Order Plan<br>Revision:<br>B            |
| 1. JOINT DEVELOPMENT OF TECHNICAL REQUIREMENTS  |  | Out - Manager                                |
| Prior to meeting with the contractor to develop the detailed technical requirements of the (TOM) estimated the total cost of the work to be: \$300,000  | <del>-</del>                                   |  |
| OnNASA and the contractor met to j this task order plan.  |  |  |
| Discussion with the contractor during the technical requirement definition meeting(s) a basic contract, resulted in a total estimated cost of:  \$269.839   | nd application of the rat                      | es required by the                           |
| Differences (if any) between the original Government estimate and the results of the tector to the following general factors:   | chnical requirement defi                       |  |
| Labor hours estimates are as expected and are in-line with the Government estimate. Experience on other task orders. The estimates were coordinated and partnered with N  | Estimates are based on pa<br>ASA.              | ast performance and                          |
| Added ODC estimates are as expected and are in-line with Government estimate.   |  |  |
| There are not any Travel or Training costs in this revision.  |  |  |
|   |  |  |
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| 2. ADEQUACY OF THE CONTRACTOR'S UNDERSTANDING OF T  | HE STATEMENT O                                 | F WORK (SOW):                                |
| STATEMENT OF WORK: The contractor's description of the work to be performed, methods of accomp execution (X) are ( ) are not consistent with the intent of the Task Order are   | olishment, schedules and reflect a reasonable  | nd/or plan of basis to proceed.              |
| 3. ADEQUACY OF LABOR RESOURCE REQUIREMENTS:   |  |  |
| ASSESSMENT OF LABOR HOURS: The kinds, quantities, and distribution of labor hours proposed (including tho and/or the use of overtime, if proposed) (X) are ( ) are not considered apprescope of work. The basis for this determination is:  | se of subcontractors, tropriate and reasonable | niversity affiliates,<br>e to accomplish the |
|   | CY <u>6</u> . The hours and                    | d skill mix are                              |
|   |  | Dogg 1 of 3                                  |

# NAS10-03006: USTDC TECHNICAL EVALUATION FORM

(Use of this form is mandatory for all Task Order Plan changes)

# WHEN A BASIS OF DETERMINATION BLOCK IS CHECKED, FILL INS ARE REQUIRED.

| Previous experience with the work performed on contract number The work successfully performed on this past contract was similar in nature and scope to the work being considered on this task.  |
|--|
| ☐ Engineering judgment gained from years working on similar projects.  |
| ☐ Government engineering breakdown/analysis of all elements. (Attached)  |
| ☐ Detailed comparison with independent Government estimate. (Attached. Include an explanation of Inconsistencies between the Government Estimate and the final Task Order Plan)  |
| ☐ Other basis:   |
| 4. ASSESSMENT OF OTHER DIRECT COSTS (ODC):   |
| a. MATERIAL and OTHER SUBCONTRACT COST:  The kinds and quantities of materials, equipment, and/or other subcontracts (including consultants, temporary services, etc.) (X) are () are not () N/A considered appropriate and reasonable to accomplish the scope of work. The basis for this determination is: |
| X Previous experience with task order number410 from CY_6. The proposed ODC's are consistent with the actuals experienced on this successfully completed task.   |
| ☐ Previous experience with the work performed on contract number The work successfully performed on this past contract was similar in nature and scope the work being considered on this task.   |
| ☐ Engineering judgment gained from years working on similar projects.  |
| ☐ Government engineering breakdown/analysis of all elements. (Attached)  |
| ☐ Detailed comparison with independent Government estimate. (Attached. Include an explanation of Inconsistencies between the Government Estimate and the final Task Order Plan)  |
| ☐ Other basis:   |
| b. TRAVEL: The contractor's proposed use of travel ( ) is ( ) is not (X ) N/A considered appropriate regarding the number and nature of trips and travelers, destinations and duration of stays. The basis for this determination is:  |
| X Previous experience with task order number 410 from CY 6. The proposed travel is consistent with the actuals experienced on this successfully completed task.  |
| ☐ Previous experience with the work performed on contract number The work successfully performed on this past contract was similar in nature and scope the work being considered on this task.   |
| ☐ Engineering judgment gained from years working on similar projects.  |
| ☐ Government engineering breakdown/analysis of all elements. (Attached)  |
| ☐ Detailed comparison with independent Government estimate. (Attached. Include an explanation of Inconsistencies between the Government Estimate and the final Task Order Plan)  |
| ☐ Other basis:  Page 2 of 3  |
| NAS10-03006 USTDC Technical Evaluation Form 12/10/2008 Page 2 of 3   |

# NAS10-03006: USTDC TECHNICAL EVALUATION FORM

(Use of this form is mandatory for all Task Order Plan changes)

WHEN A BASIS OF DETERMINATION BLOCK IS CHECKED, FILL INS ARE REQUIRED.

| -                                       | ~           |
|---|-------------|
| 5. ANY OTHER COMMENTS (SCHEDULES, ETC): |             |
|   |             |
|   |             |
|   |             |
|   |             |
| NASA Task Order Manager: Steven Milton  |             |
| Signed: / Clade                         | Date:3/3/08 |